



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 10/803,788 | 03/17/2004 | Hristo Iankov Bojinov | DECR0004 | 8050 |

22862 7590 08/10/2007
GLENN PATENT GROUP
3475 EDISON WAY, SUITE L
MENLO PARK, CA 94025

| |
|----------|
| EXAMINER |
|----------|

COLAN, GIOVANNA B

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2162

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/803,788

Applicant(s)

BOJINOV ET AL.

Examiner

Giovanna Colan

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 6-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is issued in response to the Amendment filed on 05/22/2007.
2. Claim1 was amended. Claims 6 – 29 were canceled. No claims were added.
3. This action is made Final.
4. Claims 1 –5 are pending in this application.
5. Applicant's arguments filed on 05/22/2007 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1 – 5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is not statutory because claims they merely recite computing steps without producing any concrete, useful result and tangible result and/or being limited to a practical application within the technological arts. The method for distributing and caching metadata, as recited in the claim, does not output any concrete, useful, and tangible result. Additionally, such "files, objects, and file, object-related information" recited in claim 1 do not constitute at least concrete and tangible results.

That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at *1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit

patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 **> (1966); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Xu et al. (Xu hereinafter) (US Patent No. 6,324,581 B1, issued: November 27, 2001).

Regarding Claim 1, Xu discloses a method for distributing and caching metadata related to files maintained in a file system, comprising the steps of:

exchanging any of files, objects, and file-, object-related information between a file server and a client via an intermediary device (Col. 9, and 14, lines 59 – 66 and 61 – 67; respectively, Xu); and

using file handles to convey said metadata for use by said intermediary device and said client (Fig. 3, item 61: “Data Mover”, item 65: “Client #2”, item 64: “Client #1”,

Metadata displayed over the arrows, and item 62: "File System", and, Col. 33, lines 3 – 8, "for a request on a remote file, CFS uses the primary id and file handle system if inside the file handler to find the proper ShFS, and use the inode number to find the snode. Anything after that should be the same as if the file is owned by a local data mover from the CFS point of view..."; wherein the Examiner interprets the data mover as the intermediate device claimed; Xu¹).

Regarding Claim 2, Xu discloses a method, further comprising the step of:
using said metadata in said file handles for any of eliminating a need for said intermediary device to generate additional requests to said server to establish file identity, and for completing client requests (Col. 32, lines 33 – 35, Xu).

Regarding Claim 3, Xu discloses a method, further comprising the step of:
using said intermediary device to encode metadata in the form of a session key into said file handle that expires after a predetermined amount of time (Col. 23, lines 47 – 54, Xu²).

¹ Additionally, and to further clarify, Xu teaches such file request and exchange is performed (Fig. 20, item 351: "Local File Lock?", item 353: "Global File Lock", item 355: "**Does Data Mover** own the file to be accessed?", and item 357: "Send a file lock request (including secondary's **metadata** version number) to the owner of the file", and Fig. 20, item 361: "New Metadata from owner?", item 362: "**Cache new metadata** (and version No.) from the owner", and item 370: "Receive an acknowledgement from the owner and **forward it to the client process**", and Col. 9, lines 62 – 66, "The data mover 61, owns the file system 62, and the data mover 61 exchanges metadata with the file system 62. The data mover 61 has at least one network port 71 connected through the data network 70 to a first client 64 and a second client 65", Xu).

² Additionally, and to further clarify, Xu further discloses more details (See for example, Fig. 20, item 357: "Send a file lock request (including secondary's metadata version number) to the owner of the file", Col. 31, lines 31 – 42, "...This file lock request includes the secondary data mover's metadata version

Regarding Claim 4, Xu discloses a method, wherein said file system is an NFS file system (Col. 7, lines 57 – 59, Xu).

Regarding Claim 5, Xu discloses a method, wherein said file system uses a stateless protocol (Col. 7, lines 57 – 59, Xu).

number...”, Wherein Examiner interprets the step of including metadata and metadata version number in the file lock request as the step of encoding the metadata into a file handle as claimed; Xu).

Response to Arguments

1. Applicant's arguments with respect to 35 USC § 101 rejections have been fully considered but they are not persuasive.

First, applicant argues that; "Applicant's claim refers to just this method for distributing and caching metadata in connection with files maintained in a file system. The file system is a tangible and concrete thing, as are the files contained in a file system". However, "the file system" included in the limitation: "method for distributing and caching metadata in connection with files maintained in a file system" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Such "files, objects, and file, object-related information" recited in claim 1 do not constitute at least concrete and tangible results. Therefore, the claims, as recited, fail to produce useful, concrete, and tangible result. Thus, the 35 USC § 101 rejections are maintained.

2. In response to applicant's argument that "There is nothing in this teaching that concern the use of file handles to convey metadata for use by intermediary devices and the client", a recitation of the intended use of the claimed invention must result in a

structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In this case, Xu teaches the intended use and limitations of: using file handles to convey said metadata for use by said intermediary device and said client (Fig. 3, item 61: "Data Mover", item 65: "Client #2", item 64: "Client #1", Metadata displayed over the arrows, and item 62: "File System", and, Col. 33, lines 3 – 8, "for a request on a remote file, CFS uses the primary id and file handle system if inside the file handler to find the proper ShFS, and use the inode number to find the snode. Anything after that should be the same as if the file is owned by a local data mover from the CFS point of view..."; wherein the Examiner interprets the data mover as the intermediate device claimed; Xu). Additionally, and to further clarify, Xu teaches such file request and exchange is performed (Fig. 20, item 351: "Local File Lock?", item 353: "Global File Lock", item 355: **"Does Data Mover** own the file to be accessed?, and item 357: "Send a file lock request (including secondary's **metadata** version number) to the owner of the file", and Fig. 20, item 361: "New Metadata from owner?", item 362: **"Cache new metadata** (and version No.) from the owner", and item 370: "Receive an acknowledgement from the owner and **forward it to the client process**", and Col. 9, lines 62 – 66, "The data mover 61, owns the file system 62, and the data mover 61 exchanges metadata with the file system 62. The data mover 61 has at least one network port 71 connected through the data network 70 to a first client 64 and a second client 65", Xu).

Art Unit: 2162

3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that metadata in the form of a session key "may be encoded" into a file handle) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. Applicant argues that the prior art fails to disclose; "encoding of metadata into a file handle".

Examiner respectfully disagrees. The applied art does disclose encoding of metadata into a file handle (Col. 23, lines 47 – 54, Xu). Additionally, and further clarify, Xu discloses more details (See for example, Fig. 20, item 357: "Send a file lock request (including secondary's metadata version number) to the owner of the file", Col. 31, lines 31 – 42, "...This file lock request includes the secondary data mover's metadata version number...", Wherein Examiner interprets the step of including metadata and metadata version number in the file lock request as the step of encoding the metadata into a file handle as claimed; Xu).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2162

Prior Art Made Of Record

1. Xu et al. (US Patent No. 6,324,581 B1, issued: November 27, 2001).
2. Vahalia et al. (US Patent No. 6,389,420 B1).


Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna Colan whose telephone number is (571) 272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
August 4, 2007


SHAHID ALAM
PRIMARY EXAMINER